

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>	<b>Complete if Known</b>		
	Application Number	10/612,174	
	Filing Date	July 2, 2003	
	First Named Inventor	Robert K. Reich	
	Art Unit	2826	
	Examiner Name	Kevin Quinto	
Attorney Docket Number	MIT8806L		
Sheet	1	of	3

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
FL	A	US- 4,322,638	03-30-1982	Lee et al.	
	B	US- 4,322,752	03-30-1982	Bixby	
	C	US- 4,835,616	05-30-1989	Morcom	
	D	US- 5,355,165	10-11-1994	Kosonocky et al.	
	E	US- 5,754,228	05-19-1998	Dyck	
	F	US- 5,754,229	05-19-1998	Elabd	
	G	US- 5,796,433	08-18-1998	Dyck	
	H	US- 5,867,215	02-02-1999	Kaplan	
	I	US- 5,953,061	09-14-1999	Biegelsen et al.	
	J	US- 6,049,357	04-11-2000	Shinohara	
FL	K	US- 6,218,692	04-17-2001	Guidash et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

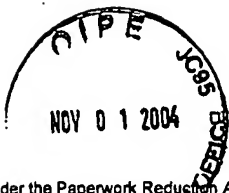
FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> *Number <sup>4</sup> *Kind Code <sup>5</sup> (if known)				
	L	WO 97/46004	12-04-1997	Silicon Mountain Designs		

Examiner Signature	Kevin Quinto	Date Considered	1/29/05
--------------------	--------------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/088 (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**Complete if Known****INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 2 of 3

Application Number 10/612,174

Filing Date July 2, 2003

First Named Inventor Robert K. Reich

Art Unit 2826

Examiner Name Kevin Quinto

Attorney Docket Number MIT8806L

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
RL	M	FUJITA et al., "A New High-Speed Camera System for Broadcast Use - The Action Analyzer," SMPT Journal, pp. 820-823, October 1990.	
	N	REICH et al., "Integrated Electronic Shutter for Back-Illuminated Charge-Coupled Devices," IEEE Transactions on Electron Devices, Vol. 40, No. 7, pp. 1231-1237, July 1993.	
	O	KABRA et al., "180x180 Element Ultra High Frame Rate Burst Image Sensor," Proc. of the 40th Midwest Symp. on Circuits & Systems, Sacramento, CA, pp. 1423-1425, Aug. 2-6, 1997.	
	P	KOSONOCKY et al., "360x360 Element Three-Phase Very High Frame Rate Burst Image Sensor: Design, Operation, and Performance," IEEE Transactions on Electron Devices, Vol. 44, No. 10, pp. 1617-1624, October 1997.	
	Q	YATES et al., "An intensified/shuttered cooled CCD camera for dynamic proton radiography," In "Digital Solid State Cameras: Designs and Applications," Williams, Jr., Editor, SPIE Vol. 140, pp. 140-151, April 1998.	
	R	RATHMAN, "Transient Analysis of Photogenerated Charge-Carrier Collection in High-Frame-Rate Charge-Coupled Devices," MIT Lincoln Laboratory Solid State Research Quarterly Technical Report, pp. 25-30, September 1, 1999.	
	S	HARTMANN et al., "A high-speed frame store CCD for the use in optical and near infrared astronomy," In "Adaptive Optical Systems Technology," Wizinowich, Ed., Proc. SPIE Vol. 4007, pp. 493-499, 2000.	
	T	O et al., "6k-pixel 160-MHz CCD linescan sensor," In "Sensors and Camera Systems for Scientific, Industrial, and Digital Photography Applications," Blouke et al., Eds., Proc. SPIE Vol. 3965, pp. 50-57.	
	U	REICH et al., "Burst-Frame-Rate CCD Imager," MIT Lincoln Laboratory Solid State Research Quarterly Technical Report, pp. 25-29, September 7, 2001.	
RL	V	REICH et al., "High-Fill-Factor, Burst-Frame-Rate Charge-Coupled Device," International Electron Device Meeting and IEDM Technical Digest, pp. 567-570, December 2001.	

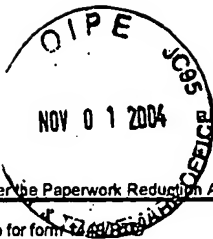
Examiner Signature	Kevin Quinto	Date Considered	1/24/05
--------------------	--------------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 2748/1509

**Complete if Known****INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 3 of 3

Application Number 10/612,174

Filing Date July 2, 2003

First Named Inventor Robert K. Reich

Art Unit 2826

Examiner Name Kevin Quinto

Attorney Docket Number MIT8806L

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
R	W	REICH et al., "High-Speed Electronically Shuttered Solid-State Imager Technology," Proc. 14th Topical Conference on High-Temp Plasma Diagnostics, July 8-11, 2002, and Review of Scientific Instruments, V. 74, Part 2, pp. 2027-2031, March 2003.	

Examiner Signature	Kevin Quinto	Date Considered	1/24/05
-----------------------	--------------	--------------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.